

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 1-20 are present in this application. Under 35 U.S.C. § 103(a), claims 1-5, 10, 14, 18 and 19 are rejected over JP 2002-003091 (Uetake et al.) in view of U.S. 4,629,035 (Tanahashi et al.) and claims 15-17 and 20 are rejected over Uetake et al. in view of Tanahashi et al. and further in view of U.S. 4,658,935 (Holland). Claims 6-9 and 11-13 are withdrawn from consideration.

The elevator controller according to claim 1 includes a main control unit for controlling the operation of an elevator. The control unit calculates a plurality of first elevator operation parameters for an operation of the elevator, calculates a future predicted temperature state of a predetermined component of the elevator, compares the predicted temperature state to a range of permitted temperature states, performs operational control of the elevator using the first elevator travel parameters if the predicted temperature state is within the range, and changes at least one of the plurality of first elevator travel parameters if the predicted temperature state is outside of the range to obtain second operation parameters that will maintain a temperature state of the component within the range and performs operation control of the elevator using the second elevator operation parameters. The predicted temperature is used to select whether to use the calculated first parameters or the calculated second parameters to maintain proper operation of the elevator.

Uetake et al. discloses an elevator controller where the temperature state is detected and if the temperature exceeds a threshold, a running pattern may be changed. There is no calculation of a predicted future temperature state, as recognized in the Office Action. Tanahashi et al., as shown in Fig. 2, calculates the quantity of heat generation P_w (step 101), calculates a change in temperature $\Delta\theta_y$ (step 102), and calculates the temperature of the rotor using equation 5 which takes into account the change in temperature (step 103). The

resistance of the rotor is calculated in step 104. As state in column 4, lines 27-30, the resistance value is corrected, the optimum instantaneous current command is evaluated and overvoltage and insufficient torque are avoided. Tanahashi et al. teaches that the change in temperature is used in the calculation of the resistance of the rotor. The change in temperature is not compared to a range of temperature states or used to change a parameter. It is one of the values used to determine the proper current value.

Thus, there is no suggestion in either reference of a controller which calculates elevator operation parameters and selects parameters which will maintain the temperature of a component within a range of temperature states, based upon a predicted future temperature state. Claim 1 is patentable over Uetake et al. combined with Tanahashi et al.

Claim 18 recites using a temperature sensor to sense a temperature of a component of a drive system of the elevator, calculating a first elevator operation parameters using the temperature, calculating a future predicted temperature state of the component of the drive system, comparing the predicted temperature state to a range of permitted temperature states, using the first elevator operation parameters if the predicted temperature state is within the range, changing at least one of a plurality of elevator travel parameters if the predicted temperature state is outside of the range to obtain second elevator operation parameters that will maintain a temperature of the component within the range, and using the second elevator operation parameters if the predicted temperature state is outside of the range. Neither of Tanahashi et al. and Uetake et al. suggests using a future temperature predicted state to select elevator operation parameters to maintain the temperature of a component of the elevator within a range of permitted temperature states. Claim 18 is also patentable over Tanahashi et al. and Uetake et al.

Holland is cited for disclosing a selector system which determines a plurality of sets of elevator travel parameters and selects travel parameters based upon a comparison of one of

the parameters in the sets. However, even if such teachings could be combined with Uetake et al. and Tanahashi et al., the combination would still be deficient for the reasons described above.

It is respectfully submitted that the present application is in condition for allowance, and a favorable action to that effect is respectfully requested.

Respectfully submitted,

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